

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.-6. [Canceled]

7. [Currently amended] A femoral hip implant for a femoral canal, the femoral canal having a canal wall with anterior, posterior, medial, and lateral aspects and a longitudinal axis along the femoral canal from a proximal position near the hip joint to a distal position nearer the knee joint, the femoral hip implant comprising:

a stem having a proximal end, a distal end, and a longitudinal axis extending therebetween, the stem having a polished and tapered exterior surface that permits the implant to subside distally into a cured cement mantel under load;

a positioner, the positioner being removably engageable with the stem, the positioner including means for preventing the stem from rising proximally beyond a predetermined position by abutment of the stem against the positioner while permitting distal subsidence of the stem; and means for anchoring the means for preventing relative to a femoral canal, The femoral hip implant of claim 3 wherein

the positioner comprising further comprises a body including first and second members extending at an angle from one another, the means for preventing including the first member and the means for anchoring including the second member, the first member being positionable proximally over a portion of the stem while the second member is simultaneously positionable along the exterior

surface of the stem between the stem and the canal wall, the second member being anchorable in a cement mantel between the stem and the canal wall; and

a head mounted on the stem, the head being engageable with a pelvic portion of the hip joint to provide articulating joint function, the means for preventing the stem from rising being able to prevent the stem from rising while permitting the stem to subside during articulation of the joint in use by a patient.

8. [Previously presented] The femoral hip implant of claim 7 further comprising means for spacing the stem a predetermined distance from the lateral aspect of the femoral canal.
9. [Previously presented] The femoral hip implant of claim 8 wherein the means for spacing comprises a spacing member connected to the body a predetermined distance from the second member, the spacing member being engageable with the stem and the second member being engageable with the lateral aspect of the femoral canal to maintain a predetermined spacing between the stem and the lateral aspect of the femoral canal.
10. [Previously presented] The femoral hip implant of claim 9 wherein the spacing member comprises a projection extending medially from the second member toward the stem.
11. [Previously presented] A positioner for retaining a femoral hip implant in a femoral canal, the femoral canal having anterior, posterior, medial, and lateral aspects and a longitudinal axis along the femoral canal from a proximal position near the hip joint to a distal position nearer the knee joint, the femoral hip implant being surrounded at least in part by cement positioned between the femoral hip implant and the femoral canal, the femoral hip implant having a longitudinal axis that in use is approximately parallel to the femoral canal longitudinal axis, and a polished and tapered exterior surface that permits the implant to

move relative to the cement and therefore to subside distally into the cement under load, the positioner comprising:

means for preventing the femoral hip implant from rising out of the femoral canal beyond a predetermined position while permitting subsidence of the femoral hip implant distally into the cement;

means for anchoring the means for preventing relative to the femoral canal; a body including first and second members extending at an angle from one another, the means for preventing including the first member and the means for anchoring including the second member, the first member being positionable over a portion of the femoral hip implant, the second member being positionable in the cement to anchor the positioner relative to the femoral canal;

means for spacing the femoral hip implant a predetermined distance from the lateral aspect of the femoral canal, wherein the means for spacing comprises a spacing member connected to the body a predetermined distance from the second member, the spacing member engageable with the femoral hip implant and the second member engageable with the lateral aspect of the femoral canal to maintain a predetermined spacing between the femoral hip implant and the lateral aspect of the femoral canal, and

a projection extending distally from the first member to engage a recess formed in the femoral hip implant.

12. [Previously presented] A positioner for retaining a femoral hip implant in a femoral canal, the femoral canal having anterior, posterior, medial, and lateral aspects and a longitudinal

axis along the femoral canal from a proximal position near the hip joint to a distal position nearer the knee joint, the femoral hip implant being surrounded at least in part by cement positioned between the femoral hip implant and the femoral canal, the femoral hip implant having a longitudinal axis that in use is approximately parallel to the femoral canal longitudinal axis, and a polished and tapered exterior surface that permits the implant to move relative to the cement and therefore to subside distally into the cement under load, the positioner comprising:

means for preventing the femoral hip implant from rising out of the femoral canal beyond a predetermined position while permitting subsidence of the femoral hip implant distally into the cement;

means for anchoring the means for preventing relative to the femoral canal; a body including first and second members extending at an angle from one another, the means for preventing including the first member and the means for anchoring including the second member, the first member being positionable over a portion of the femoral hip implant, the second member being positionable in the cement to anchor the positioner relative to the femoral canal; and

third and fourth members extending from the body, the second, third, and fourth members being positionable in the cement adjacent the lateral, anterior, and posterior aspects of the femoral canal respectively.

13. [Previously presented] The positioner of claim 12 wherein at least the third and fourth members are biased inwardly toward the femoral hip implant axis in use to releasably grip the femoral hip implant prior to insertion of the femoral hip implant into the cement.

14. [Previously presented] The positioner of claim 12 wherein each of the second, third, and fourth members further comprises a projection extending inwardly toward the femoral hip implant axis in use, the projections being engageable with the exterior surface of the femoral hip implant to maintain a predetermined spacing between the members and the femoral hip implant.

15.-22. [Canceled]

23. [Currently amended] ~~The positioner of claim 22 wherein the first leg is positionable over A~~
positioner for positioning a femoral hip implant in a femoral canal, the canal having a canal wall and a longitudinal axis extending from an upper position near the hip joint to a lower position near the knee joint, and anterior, posterior, medial, and lateral aspects radially about the axis, the femoral hip implant having a shoulder defining the top of the femoral hip implant, the positioner comprising:

an "L"-shaped body having a first leg positionable over the shoulder of the femoral hip implant relative to the longitudinal axis and a second leg simultaneously positionable within the canal adjacent the canal wall between the femoral hip implant and the canal wall to maintain a predetermined spacing between the femoral hip implant and the canal wall while permitting downward motion of the implant into the canal.

24. [Canceled]

25. [Currently amended] ~~The femoral hip system of claim 18 wherein the A femoral hip system for implantation with bone cement in a hip joint formed by a femur and a pelvis, the femur having a femoral canal, the system comprising:~~

a femoral hip implant having a stem insertable into a femoral canal; and

a positioner having an anchor member embeddable in bone cement to secure the positioner in the femoral canal adjacent the hip implant, and a retention member engageable with a portion of the femoral hip implant such that it blocks upward motion of the implant out of the canal while permitting downward motion of the implant into the canal during articulation of the joint, the positioner comprises comprising a unitary, "T"-shaped body with legs projecting downwardly from the ends of the "T", the T"-shaped body defining the retention member and the downwardly projecting legs defining the anchor member.

26. [Previously presented] The femoral hip system of claim 25 wherein the positioner further comprises a boss projecting downwardly from the "T"-shaped body, the boss being engageable with the stem to space the stem radially a predetermined distance from the legs.

27.-28. (Canceled)

29. (Currently amended) A positioner for retaining a femoral hip implant in a femoral canal having a longitudinal axis and a canal wall extending from an upper position near the hip joint to a lower position near the knee joint, and anterior, posterior, medial, and lateral aspects radially about the axis, the positioner comprising:

a first member positionable proximally over a portion of the femoral hip implant; and a second member extending at an angle from the first member, the second member being securable relative to the femoral canal such that the positioner limits upward axial motion of the femoral hip implant while permitting downward axial motion of the femoral hip implant postoperatively during articulation of the joint, the first and second members being angled such that the first member is positionable

proximally over a portion of the femoral hip implant while the second member extends around the exterior of the implant to engage a cement mantle surrounding the femoral hip stem. ~~The positioner of claim 28 wherein the first member comprises comprising a top and the second member comprises comprising a first leg that curves downwardly from the top approximately 90 degrees, the positioner further including a second leg extending from the top and curving downwardly approximately 90 degrees, and a third leg extending from the top and curving downwardly approximately 90 degrees such that the first, second, and third legs are positionable along first, second , and third sides of the femoral hip implant.~~

30. (Previously presented) The positioner of claim 29 further comprising a boss projecting downwardly from the first member, the legs each curving downwardly approximately parallel to the boss and surrounding the boss.

31. (Previously presented) The positioner of claim 30 wherein each leg further comprises a tab extending inwardly toward the boss.

32.-34. (Canceled)

35. (Currently amended) A method for positioning a femoral hip implant in a femoral canal, the method comprising:

inserting cement into the femoral canal;

inserting a femoral hip implant into the cement in the femoral canal;

inserting an implant positioner adjacent to the femoral hip implant with an anchor

member placed into the cement such that the anchor member becomes firmly

attached to the cement upon hardening of the cement and with a retention member

positioned above a portion of the implant such that upward motion of the femoral hip implant beyond a predetermined position is limited by abutment of the portion against the retention member while downward subsidence of the femoral hip implant is unimpeded by the positioner during articulation of the hip joint in normal use by a patient. The method of claim 24 wherein the positioner further comprises comprising a boss extending downwardly from the retention member and inserting the positioner further comprises, and
engaging the boss with the femoral hip implant to space the femoral hip implant a predetermined distance from the anchor member.

36. (Currently amended) A method for positioning a femoral hip implant in a femoral canal, the method comprising:

inserting cement into the femoral canal;
inserting a femoral hip implant into the cement in the femoral canal;
inserting an implant positioner adjacent to the femoral hip implant with an anchor member placed into the cement such that the anchor member becomes firmly attached to the cement upon hardening of the cement and with a retention member positioned above a portion of the implant such that upward motion of the femoral hip implant beyond a predetermined position is limited by abutment of the portion against the retention member while downward subsidence of the femoral hip implant is unimpeded by the positioner during articulation of the hip joint in normal use by a patient. The method of claim 24 wherein the positioner further

~~comprises comprising~~ a tab extending inwardly toward the femoral hip implant from the anchor member ~~and inserting the positioner further comprises, and~~ engaging the tab with the femoral hip implant to space the femoral hip implant a predetermined distance from the anchor member.

37. (Currently amended) A method for positioning a femoral hip implant in a femoral canal, the method comprising:

inserting cement into the femoral canal;
inserting a femoral hip implant into the cement in the femoral canal;
inserting an implant positioner adjacent to the femoral hip implant with an anchor member placed into the cement such that the anchor member becomes firmly attached to the cement upon hardening of the cement and with a retention member positioned above a portion of the implant such that upward motion of the femoral hip implant beyond a predetermined position is limited by abutment of the portion against the retention member while downward subsidence of the femoral hip implant is unimpeded by the positioner during articulation of the hip joint in normal use by a patient. ~~The method of claim 24 wherein the anchor member comprises comprising~~ first, second, and third legs extending downwardly from the retention member ~~and inserting the positioner further comprises, and~~ placing the first, second, and third legs in the cement adjacent anterior, lateral, and posterior sides of the femoral hip implant.